



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 500  
DENVER, COLORADO 80202-2466

23425 RF 94

DUE  
DATE

Ref: 8HWM-FF

ACTION

DIST.	LTR	ENC
BURLINGAME, A.H.		
BUSBY, W.S.		
CARNIVAL, G.J.		
CORDOVA, R.C.		
DAVIS, J.G.		
FERRERA, D.W.		
FRAY, R.E.		
GEIS, J.A.		
GLOVER, W.S.		
SOLAN, P.M.		
IANNI, B.J.		
JEALY, T.J.		
JEDAH, T.G.		
JILBIG, J.G.		
JUTCHINS, N.M.		
JACKSON, D.T.		
KELL, R.E.		
QUESTER, A.W.		
MARX, G.E.		
McDONALD, M.M.		
McKENNA, F.G.		
MORGAN, R.V.		
PIZZUTO, V.M.		
POTTER, G.L.		
SANDLIN, N.B.		
SATTERWHITE, D.G.		
SCHUBERT, A.L.		
SCHWARTZ, J.K.		
SETLOCK, G.H.		
STIGER, S.G.		
TOBIN, P.M.		
VOORHEIS, G.M.		
WILSON, J.M.		
ROBERTS, RICK	X	
HOLLOWELL	L	X

Mr. Steve Slaten  
Department of Energy  
Rocky Flats Office  
P.O. Box 928  
Golden, Colorado 80402-0928

RE: Programmatic Risk-Based Preliminary Remediation Goals

Dear Mr. Slaten:

EPA has reviewed the document referenced above and has assembled the following comments. In general, this document correctly presents the methodology, equations and assumptions necessary to derive risk-based preliminary remediation goals (PRGs) of an extensive list of contaminants in specific media for a variety of exposure scenarios at the Rocky Flats Plant. Listed below are specific discrepancies between values shown in this document and EPA recommended values.

## Specific Comments

1. Page 19, Table 11; Page 20, Table 12; Page 21, Table 13. These tables present exposure parameters for a construction worker, two of which must be corrected. The inhalation rate of 6.64 m<sup>3</sup>/day is too low for a construction worker. Based on heavy activity, an inhalation rate of 1.25 m<sup>3</sup>/hr is typically recommended by EPA, as per the Exposure Factors Handbook, (EPA/600/8-89/043) for a construction worker. Given an 8-hour day, the inhalation rate should therefore be 10 m<sup>3</sup>/day.

The same tables in this document present 50 mg/day as the soil ingestion rate for a construction worker. The EPA default soil ingestion rate for a construction worker is 480 mg/day, according to Risk Assessment Guidance for Superfund, Part B.

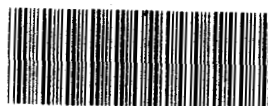
2. Table 25, Page 37. The oral RfD listed in this table for the endosulfans is 5.00E-5 mg/kg-day. HEAST lists a value of 6.00E-3 mg/kg-day for endosulfan. The latter value should be put in Table 25 and used to recalculate the endosulfan PRG values in Table 26.

3. Table 26, Page 40. The residential PRG values presented in this table were compared to values derived by EPA and its contractor PRC. In most cases, these PRGs are within an order of magnitude of those developed by EPA and PRC, and therefore are considered reasonable. A small percentage of the residential PRG values were found to differ by an order of magnitude or more,

SEP -1 1994  
EG&G  
ROCKY FLATS PLANT  
CORRESPONDENCE CONTROLCORRES. CONTROL X  
ADMIN RECORD/080 X  
PATS/T130GReviewed for Addressee  
Corres. Control RFP9-6-94 RDM  
DATE BY

Ref Ltr. #

DOE ORDER # 5400.1



000025805

ADMIN RECCRD  
SW-A-003667

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- even though the toxicity values listed for them appeared to be correct (except endosulfan). The chemicals with inconsistent PRGs are listed below. They must be checked and corrected where appropriate.

Residential Groundwater: Arochlor-1016, 1221, 1232, 1242, 1248, 1254, and 1260; 1,2-dichloropropane, endosulfans, hexachlorocyclopentadiene, and hexachloroethane.

Residential Soil: Arochlor-1016, 1221, 1232, 1242, 1248, 1254, and 1260; di-n-butylphthalate, endosulfans, and cesium 137.

All PRGs for the construction worker scenario listed in this table must be recalculated using the ingestion and inhalation rates specified above in comment #1.

If you have any questions concerning these matters, please contact Gary Kleeman of my staff at 294-1071.

Sincerely,



Martin Hestmark, Manager  
Rocky Flats Project

cc: Bonnie Lavelle, EPA  
Rick Roberts, EG&G  
Bruce Thatcher, DOE  
Joe Schieffelin, CDH